



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/986,685 | 11/09/2001 | Kyeong Bae Park | 0630-1357P | 5872 |

2292 7590 01/22/2004

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SCHEUERMANN, DAVID W

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2834

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|----------------------------------|-----------------------------|--|
| Office Action Summary | Application No. 09/986,685 | Applicant(s) PARK ET AL. | |
| | Examiner David W. Scheuermann | Art Unit 2834 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Response to Amendment

Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless –(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by

Tourtellotte, US 3536941. Tourtellotte shows:

A stator fastening structure of a reciprocating motor, comprising:

a frame (including 31, 13 and 25) which includes an outer core fixing member 31, and an inner core fixing member 25,

said outer core fixing member 31 being fixed to and supporting

an outer core (47L and 47R) of said stator at an end of said outer core;

said inner core fixing member being fixed to and supporting

an inner core 9 of said stator at an end of said inner core

corresponding to said end of said outer core;

said outer core fixing member and said inner core fixing

Art Unit: 2834

member being joined (via end cap 13 as shown in figure 1) near said ends of said inner and outer cores;

the outer core fixing member of the frame and the inner core fixing member of the frame being formed of different material from each other.

Re claim 3 note that 31 is formed of stainless steel as described in column 2, lines 57-60, while sleeve 25 is a magnetizable material, column 3, lines 52-55.

Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Dadd, US 6127750. Dadd shows:

A stator fastening structure of a reciprocating motor, comprising:

a frame (including 10, 70, 71, 12, 11) which includes an outer core fixing member 71, and an inner core fixing member 4,

said outer core fixing member 71 being fixed to and supporting an outer core (11) of said stator at an end of said outer core;

said inner core fixing member (cylinder 4) being fixed to and supporting an inner core 14 of said stator at an end of said inner core corresponding to said end of said outer core;

said outer core fixing member and said inner core fixing member being joined (via end cap 10 and 17 and 71 as shown in figure 3) near said ends of said inner and outer cores;

the outer core fixing member of the frame and the inner core

Art Unit: 2834

fixing member of the frame being formed of different material from each other.

Re claim 2 note that the central housing portion 11 is made of magnetic material, see column 1, lines 47-49, whereas cylinder 4 is made of a non-magnetic material such as aluminum, see cloumn8, lines 11-13.

Claims 1 and 3 are rejected under 35 U.S.C. 102(a) as being anticipated by Chari, US 3896319. Chari shows:

A stator fastening structure of a reciprocating motor, comprising:
a frame (including 12, 14, 16, 18, 20, 66, 68) which includes an outer core fixing member (66 or 68), and an inner core fixing member (16, 18 or 20),
said outer core fixing member being fixed to and supporting
an outer core (64a or 64b) of said stator at an end of said outer core;
said inner core fixing member being fixed to and supporting
an inner core (24a or 24b) of said stator at an end of said inner core
corresponding to said end of said outer core;
said outer core fixing member and said inner core fixing
member being joined (via end cap 116 as shown in figure 1) near said ends of
said inner and outer cores;
the outer core fixing member of the frame and the inner core
fixing member of the frame being formed of different material
from each other.

Re claim 3 note that both 66 and 68 are non-magnetic spacers and 16, 18, or 20 are magnetic material as evidenced in figure 6, by the magnetic flux lines.

Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Goldowsky, US 4675563. Goldowsky shows:

A stator fastening structure of a reciprocating motor, comprising:
a frame (including 18, 24, 27, 26, 60) which includes an outer core fixing member 27, and an inner core fixing member 60,
said outer core fixing member being fixed to and supporting
an outer core (30 or 32) of said stator at an end of said outer core;
said inner core fixing member (27 or 26) being fixed to and supporting
an inner core (36 or 38 via 26) of said stator at an end of said inner core
corresponding to said end of said outer core;
said outer core fixing member and said inner core fixing
member being joined near (all within 10) said ends of said inner and outer cores;
the outer core fixing member of the frame and the inner core
fixing member of the frame being formed of different material
from each other.

Re claim 2 note that flux lines in figure 2 indicate that both 60 and 26 are magnetic while non-magnetic connecting plate 27 joins 24 and 26.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shiratori et al. teach mounting a pole via non-magnetic ball 10 for the purpose of reducing a reaction force. Von der Heide teach mounting an outer flux-carrying structure 26 and 27 with shock-absorbing material 28 which could be obviously made of rubber, note column 4 lines 50-59. Pinkerton shows a non-magnetic housing 112, which supports an inner core via linear bearing 126 which could obviously be made of a magnetic material such as steel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David W. Scheuermann whose telephone number is (703) 308-9637. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone

Application/Control Number: 09/986,685

Page 7

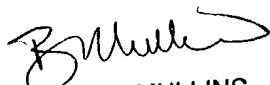
Art Unit: 2834

numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

dws

January 20, 2004


BURTON S. MULLINS
PRIMARY EXAMINER